

Red-Throated Loon (*Gavia stellata*)

(4 subspecies/populations; 1 within plan area)

Conservation Concern Category: *High Concern*

Population Trend (PT)

Declining—(Delany and Scott 2002: Barr et al. 2000; 50% decline in Alaska population from 1970s-1990s (Groves et al. 1996 cited in Delany and Scott 2002)

“Alaska population declined by 53% in 20 yr (1977: 20,833; 1993: 9,843)...” (Barr et al. 2000)

Most decline is in western tundra; no decline on North Slope or in boreal forest (McCaffery 1998 cited in Barr et al. 2000)

“slight growth in the regional population of Red-throated Loons” at a study area along the Beaufort Sea from 1985 to 1989 (Dickson 1992)

population estimates on w. Victoria Island appear stable between 1992-1994 and 2004-2005 (CWS unpub. data)

stable to slightly increasing population trend in Red-throated Loons in North Shore Migratory Bird Sanctuaries in Quebec from 1925 to 2005, with larger increases in the last 30 years (CWS unpub. data, small population numbers)

Estimated apparent population decline (Marshbird Workshop 2005)

PT FACTOR SCORE=4

Population Size (PS)

Note: Quote in Delany and Scott 2002: continental population estimated at 125,000 pairs=375,000 total individuals (Barr et al. 2000) was in error. (Eberl pers.comm.)

Alaska breeding population in 1990s 7,396-12,290 (Groves et al. 1996))

“estimated 9,843 breeding birds in Alaska...densities along North Slope at 0.6-1.1 individuals/km²...in Canadian highlands 0.005 pair/km²...in Canadian lowlands 0.23 pair/km²...densities (pairs/km²) on Tuktoyaktuk Peninsula: 0.6, 1.8, 1.3, 0.9, 0.7...densities on arctic islands: 2.7, 0.9...” (Barr et al. 2000)

9,843 breeding birds in Alaska, 784-892 breeding pairs on Queen Charlotte I., 627 on nw and sw Victoria I., 5,000 on Banks I., 402 in Rasmussen Lowlands, 2,250 pairs in Quebec

Current estimates from about half of RTLO breeding area in N.A, which has had censuses completed, total about 22,000 birds (Eberl, pers. comm.)

PS FACTOR SCORE=3

Threats to Breeding Populations (TB)

“predation is a major factor in reproductive success...competition may be an important factor...late spring thaw may cause less nesting...still hunted by native peoples in arctic Canada...relatively low OC levels in eggs...nest disturbance potentially increases predation...” (Barr et al. 2000)

“...vulnerability to offshore oil production” in Beaufort Sea area (Dickson 1992) and effects of oil spills at production sites.

Red-throated Loon is coastal species that is vulnerable to coastal development and pollution (L. Dickson, pers. comm.)

Human disturbance (e.g. mining) has potential for nest failure, as birds will stay off of nest for long periods of time when flushed (L. Dickson, pers. comm.)

TB FACTOR SCORE=4

Threats to Non-breeding Populations (TN)

“oil spills threaten wintering populations in North America...this species is commonly found entangled in fishing nets throughout its range...” (Barr et al. 2000)

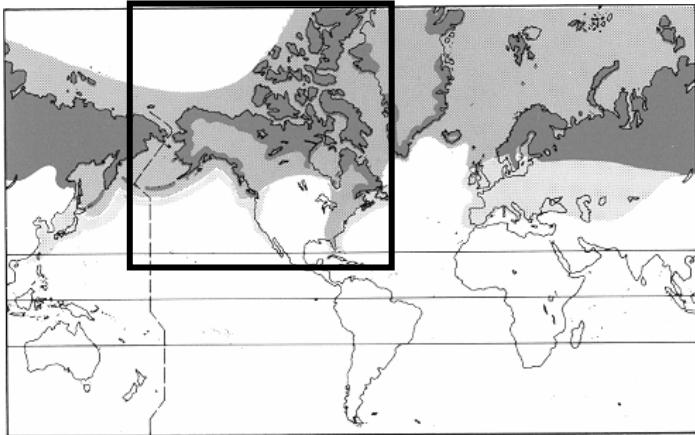
Overfishing of forage fish a potential threat; species not as susceptible to oil spills as other loon species because of more dispersed pattern on wintering grounds (Marshbird Workshop 2005)

Forsell (1999) reported impacts of bycatch from mid-Atlantic fisheries on wintering bird populations and found an estimated 2,387 birds (68% of which were Red-throated Loons) drowned in mid-Atlantic fishery gill nets, while 825 were found washed up on beaches, all over a two month period in 1998. High densities of birds in wintering areas may increase coastal populations' risk to disease outbreaks (Brand et al. 1983)

Canadian review team feels that Forsell's documentation of bycatch threat justifies a factor score of 5.

TN FACTOR SCORE=5

Global Range (Harrison 1983; inset=plan area range)



MAP 17 RED-THROATED DIVER Text p.208 Plate 6

- Harrison, P. 1983. *Seabirds: an identification guide*. Houghton Mifflin Co., New York, NY. Pp: 411
- Brand, C. J., R. M. Duncan, S. P. Garrow, D. Olson, and L. E. Schumann. 1983. Waterfowl mortality from botulism type E in Lake Michigan: an update. *Wilson Bull.* 95: 269-275.
- Dickson, D.L. 1992. The Red-throated Loon as an indicator of environmental quality. *Can. Wildl. Serv. Occas. Pap.* no. 73.
- Forsell, D. J. 1999. Mortality of Migratory Waterbirds in Mid-Atlantic Coastal Anchored Gillnets During March and April, 1998. Unpub. rep. to USFWS, Annapolis, MD.

Breeding Distribution (BD)

Arctic North America (Delany and Scott 2002)

3,399,100 km² (plan area distribution; estimated from range maps)

BD=6 million km² (C. Eberl, pers.comm.)

Recommend removing iced area from distribution estimates (Marshbird Workshop 2005)

BD FACTOR SCORE=2

Non-breeding Distribution (ND)

Coastal North America (Delany and Scott 2002)

13,787,100 km² (plan area distribution; estimated from range maps)

ND=7.4 million km² (C. Eberl, pers.comm.)

Recommend removing iced area from distribution map and performing GIS analysis (Marshbird Workshop 2005)

ND FACTOR SCORE=3

Literature Cited:

- Delany, S. and S. Scott. 2002. *Waterbird Population Estimates – Third Edition. Wetlands International Global Series No. 12*, Wageningen, The Netherlands. Pp: 22
- Barr, J.F., Eberl, C. and McIntyre, J.W. 2000. Red-throated Loon (*Gavia stellata*). In *The Birds Of North America*, No.513 (A.Poole and F. Gill, eds.). The Birds of North America, Inc., Philadelphia, PA.